

# AEIOUY WORDS

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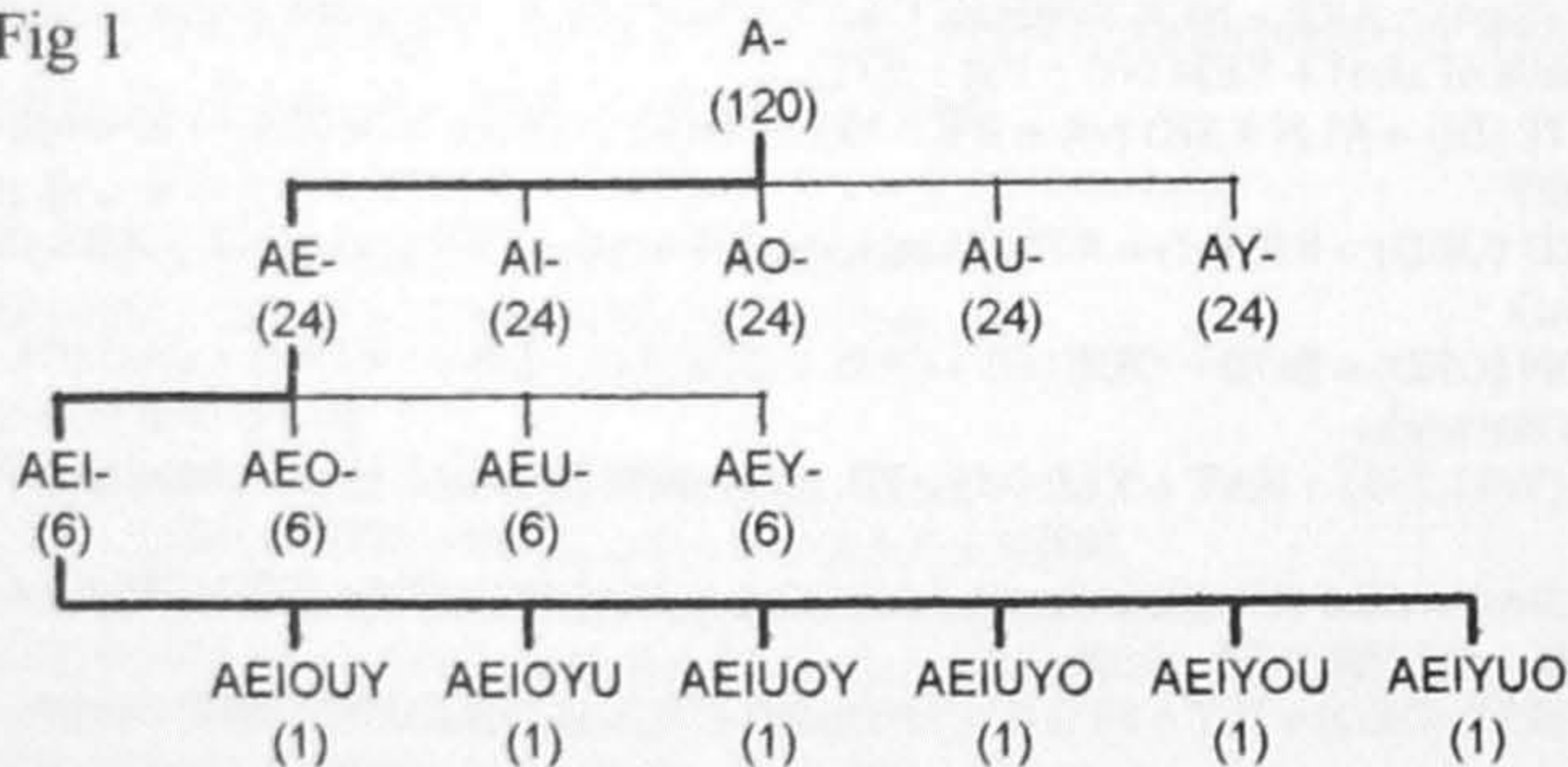
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With the 30-year quest for AEIOU words now behind us, I have taken the opportunity to add the letter Y and repeat the exercise for AEIOUY words. Y acts as a vowel in words such as *symbol* and is referred to variously as the sixth vowel, a semi-vowel or a secondary vowel. The world of AEIOUY words, those in which the six vowels A, E, I, O, U and Y each occur just once, takes us into largely unexplored territory. There are 720 permutations of the six vowels A, E, I, O, U and Y, six times as many as for A, E, I, O and U.

## Facts and Figures

There are 120 permutations ( $720/6$ ) beginning with each of the six vowels. Figure 1 analyses the 120 permutations which begin with the letter A.

Fig 1



The letter A is followed by one of the other 5 vowels to make permutations with the 5 initial bigrams AE-, AI-, AO-, AU- and AY-. Hence the total number of different initial bigrams in the 720 permutations is  $5 \times 6 = 30$ . The number of permutations beginning with each of these 30 initial bigrams is  $720/30 = 24$ . The bigram AE- is followed by one of the other 4 vowels to make permutations with the 4 initial trigrams AEI-, AEO-, AEU- and AEY-. Hence the total number of different initial trigrams in the 720 permutations is  $4 \times 5 \times 6 = 120$ . The number of permutations beginning with each of these 120 initial trigrams is  $720/120 = 6$ .

**Question:** How many of the 30 initial bigrams are represented in the examples found?

**Answer:** All 30.

**Question:** What is the maximum number (out of 24) of permutations beginning with a specific bigram for which examples were found?



**Answer:** Examples were found for 21 of the 24 beginning EU- and IO-, and for 20 and 19 respectively of those beginning IY- and IU-.

**Question:** How many of the 120 initial trigrams are represented in the examples found?

**Answer:** 115. No examples were found for those beginning IYU-, OYI-, YEI-, YIU- or YUI-.

**Question:** What is the maximum number (out of 6) of permutations beginning with a specific trigram for which no examples were found?

**Answer:** Examples were found for all 6 of the permutations beginning with each of the 9 trigrams AYO-, EOY-, EUO-, IOU-, OAY-, UYO-, YAO-, YOE- and YOU-.

### The 720 Permutations of A,E,I,O,U and Y

Each of the following six pages is devoted to the 120 permutations beginning with one of the six vowels. I list just one example for each AEIOUY permutation wherever possible. In view of the size of the undertaking, I allow capitalised words, and examples other than solid words. The three types of example, in order of preference, are (1) solid words, (2) hyphenated words and hyphenated word strings, (3) *phrases* (italicised). A breakdown of the three types of examples is given at the end of each page.

I do not admit coinages. Thus SUBDERMATOGLYPHIC (Word Ways Feb 1991) is not permitted. A few inferred words are included. For example, it seems reasonable to allow ULTRACYTOCHEMIST, inferred from the OED word ULTRACYTOCHEMISTRY.

In the six lists which follow, examples are given for 403 of the 720 permutations, 56 per cent of them. 350 of these come from just three sources: the Oxford English Dictionary (Second Edition), Nomenclator Zoologicus and Stedman's Medical Dictionary. Figure 2 gives a breakdown of sources.

Fig 2 of perm.	Initial letter	OED Zoologicus	Nomenclator M D	Stedman's Sources	Other of 120	Totals out
	A	43	16	6	7	72
	E	32	23	13	9	77
	I	33	17	5	5	60
	O	37	11	5	13	66
	U	40	7	5	13	65
	Y	23	21	13	6	63 ..
	Total	208	95	47	53	403 out of 720

With the exception of a few well-known names, the unreferenced examples in the lists are taken from the OED. They embrace head words, variant forms, and text words including citations. Other references are given at the end of this article. All AEIOUY permutations read across the page in alphabetical order.

How long will it take to achieve a complete set of examples? Rally, Word Ways readers--there are 317 gaps waiting to be filled. Where to look? One potentially productive source which I have not mined is the Times Index Gazetteer of the World.



aeiouy	HAREIOUSLY	aeioyu	TAENIOGYRUS	aeiuoy	
aeiuyo		aeiyou	MALEDICCYOUN	aeiyuo	
aeoiuy		aeoiyu	AMPELOZIZYPHUS(nz)	aeouiy	
aeouyi	SPACE-OCCUPYING	aeoyiu	HAEMOLYTICUM (s)	aeoyui	ACCESSORY FRUIT(long)
aeuioy	PRAEMUNITORY	aeuiyo		aeuoiy	ANEUPLOIDY
aeuoyi	ALEUKOCYTIC (s)	aeuyio	PLATEURYTION (nz)	aeuyoi	
aeyiou	FALSELY PIOUS (bl)	aeyiuo		aeyoiu	APTERYLOBIUS (nz)
aeyoui	STATELY-SOUNDING	aeyuio	CHANCERY-SUITOR	aeyuoi	
aieouy	AMBIDEXTROUSLY	aieoyu	ANTISTREPHORRHYNCHUS(nz)	aieuoy	
aieuyo		aieyou	PATIENTLY-WROUGHT	aieyuo	
aioeuy		aioeyu	ANTIPODENCYRTUS (nz)	aiouey	GRANDILOQUENTLY
aiouye	GRACIOUSLYE	aioyeu	AINOPTYELUS (nz)	aioyue	ANTIMONY RUBBER (w2)
aiueoy	RADICULECTOMY(w2)	aiueyo	ADINUENCYONS	aiuoey	PLATINUM CONEY
aiuoye		aiuyeo	CADMIUM-YELLOW	aiuyoe	
aiyeou	PAILYEOUN	aiyeuo		aiyoeu	
aiyoue	TAILLYOURES	aiyueo		aiyuoe	
aoeiuy		aoeiyu		aoeuiy	PHACOEMULSIFY (s)
aoeuyi		aoeyiu	ALLOCERCHYSIUS(nz)	aoeyui	ATTORNEY-CUNNING
aoieuy		aoieyu		aoieuy	ABORTIUELY
aoiuye		aoiyeu	AROPTYELUS (nz)	aoiyue	MAJORITY-RULE
aoueiy	VAPOUR-DENSITY	aoueyi	ABSOLUTELY IT (bl)	aoueiy	XANTHOPUCCINELY (s)
aouiye		aouyei		aouyie	
aoyeiu	APODYTERIUM	aoyeui		aoyieu	APOPHYSIGERUS (nz)
aoyiue	FAGOPYRISMUSES (s)	aoyuei		aoyuie	ANCHOVY-CULLICE
aueioy		aueiyo		aueoiy	VALUED POLICY
aueoyi	AUREOMYCIN	aueyio		aueyoi	NATURE-SYMBOLISM
auieoy		auieyo		auioey	AUDIOMETRY
auioye	ALUMINOTYPE (w2)	auiyeo		auiyoe	MATURITY-ONSET
auoeiy		auoeyi		auoiey	AUTOKINESY
auoiye	AUTORITYE	auoyei	AUTOSYNTHESIS (s)	auoyie	TAUTONYMIES (wgd)
auyeio		auyeoi		auyieo	ASTBURY-WHIELDON
auyioe	PAUYING-STONE	auyoei		auyoie	FACULTY-OFFICE
ayeiou	ARCHYEPISCOPUS	ayeiuo		ayeoiu	PACHYMETOPIUS (nz)
ayeoui	DAY-DEVOURING	ayeuiio	PRAYER-UNION	ayeuiio	
ayieou	AMYLIFEROUS	ayieuio	AKYMICHNEUMON(nz)	ayioeu	AMYNTICODESMUS(nz)
ayioe	MALYCIOUSE	ayiuoe	ANYTHING-BUT-HERO	ayiuoe	
ayoeiu	BRACHYCOELIUM (nz)	ayoeui	DACTYOTEUTHIS (nz)	ayoiue	APHYCOIDEUS (nz)
ayoiue	LARYNGOFISSURE	ayouei	SHANGYOUENSIS	ayouie	TRAYTOURSLICHE
ayueio	PARTY QUESTION	ayueoi		ayuieo	
ayuioe		ayuoei		ayuoie	DASYUROIDES (nz)

Initial bigram	AE-	AI-	AO-	AU-	AY-	Total
Solid words	10	10	8	7	13	48
Hyphenated	3	2	4	5	3	17
Phrases	2	2	1	1	1	7
Totals (out of 24)	15	14	13	13	17	72 (out of 120)



eaious	NEFARIOUSLY	eaioyu	HEDRAIOSTYLUS (nz)	eaiuoy	LEADING-BUOY
eaiuyo		eaiyou	TETRADIDYMOUS(dbt)	eaiyuo	
eaouiy		eaouyu	STEGANODICTYUM (nz)	eaouiy	MELANCOULILY
eaouyi		eaoyiu	PERAZOYPHIUM (nz)	eaoyui	HEMATOCYTURIC (s)
eauioy	PREAUDITORY	eauioy		eauoiy	SELF-AUTHORITY
eauoyi		eauyio		eauyoi	HEAVY-GOING
eayiou	HEXAGYNIOUS	eayiuo	CLEASBY-VIGFUSSON	eayoiu	CERAMBYCOBIUS (nz)
eayoui	HEARTY-SOUNDING	eayuio		eayuoi	
eiaouy	DENTIPAROUSLY (s)	eiaoyu	ERISTALOSYRPHUS (nz)	eiauoy	
eiauyo		eiayou	HEMIAZYGOUS (w2)	eiauyo	
eioauy		eioayu	LEPIDOCARYUM (nz)	eiouay	SEMIVOLUNTARY (w2)
eiouya		eioyau	LEIOCYAMUS (nz)	eioyua	CLEISTOYUCCA (nz)
eiuaoy	GESTICULATORY	eiuaoy	PREFIGURATYON	eiuaoy	VENTRICULOGRAPHY
eiuoya	RETICULOMYXA (nz)	eiuyao		eiuyoa	
eiyaou		eiyaou		eiyoau	HEMIGYMNODACUS (nz)
eiyoua	EIGHTY-THOUSAND	eiyuao		eiyuoa	
eoaiuy	PERSONAL INJURY	eoaiyu	NEOPALIPHYLLUM(nz)	eoaiuy	
eoauyi		eoayiu	LEPTOCARYDIUM (nz)	eoayui	SECONDARY QUILL
eoiauy		eoiayu	NEOTRIDACTYLUS(nz)	eoiauy	RETROLINGUALLY (s)
eoiuya		eoiyau		eoiyua	
eouaiy	ENCOURAGINGLY	eouayi		eouiaiy	KETONURICALLY (s)
eouiya	BELORUSSIYA (tig)	eouyai		eouyia	
eoyaiu	ENDOLYMPHATICUS (s)	eoyauu	PEROXYLAURIC	eoyiau	EOMYIDARUM (nz)
eoyiua	NEOGYPIDULA (nz)	eoyuai	PTEROYLGLUTAMIC	eoyuia	HEMOCYTURIA (w2)
euaioy	RHESUS ANTIBODY	euaiyo	THE QUALITY OF	euaoiy	EXCULPATORILY (w2)
euaoyi	NEURAPOPHYSIS	euaoyio		euaoyoi	EUKARYOTIC (s)
euiayo	ELUCIDATORY	euiayo	RENUNCIACYON	euiayo	EQUIVOCALLY
euioya	EUDRILOPHYRA (nz)	euiyao		euiyoa	EUSISYROPA (nz)
euoaiy	PSEUDO SANCTITY (w2)	euoayiu	NEUROLATHYRISM (s)	euoiaiy	NEUROTICALLY
euioya	PLEUROSICYA (nz)	euiyai	LEUKOCYTACTIC (s)	euiyia	NEURODYNIA (s)
euyaiu	EUHYDRATION (s)	euyaoi	EURYGASTROPSIS (nz)	euyiao	
euyioa	EURYZILORA (nz)	euyoiu	EURYSOMATIC (s)	euyioa	EUTHYROIDAL
eyaiou	ESTYMACIOUN	eyaiuo		eyaoiu	TETRYLAMMONIUM (s)
eyaoui	PRESBYACOUSTIC (s)	eyauio	SELL BY AUCTION (bl)	eyauoi	DEFY AUTHORITY (bl)
eyiaou		eyiauo		eyioau	ELYSIOBRANCHUS (nz)
eyioua	TWENTY-SIX THOUSAND	eyiuao		eyiuoa	
eyoaiu	ERYTHROLANIUS	eyoauu		eyoiaiu	
eyoiua		eyouai	GREYHOUND-RACING	eyouia	SEYMOURIA (nz)
eyuaio	REFYGURACION	eyuaoi		eyuiao	
eyuioa		eyuoiu	SMECTYMNUOMASTIX	eyuioa	VENYUKOVIA (nz)

Initial bigram	EA-	EI-	EO-	EU-	EY-	Total
Solid words	10	12	13	18	9	62
Hyphenated	5	1	--	--	1	7
Phrases	--	--	2	3	3	8
Totals (out of 24)	15	13	15	21	13	77 (out of 120)



iaeouy	INTRAVENOUSLY	iaeoyu	DIAMESOGLYPHUS(nz)	iaeuo	
iaeuyo		iaeyou		iaeyuo	
iaoeuy	CHIASTONEURY (w2)	iaoeyu		iaouey	ILLFAVOUREDLY
iaouye	IALOUSYE	iaoyeu	DISAZO-DYESTUFFS	iaoyue	VIBRATORY CURRENT (w2)
iaueoy		iaueyo		iauoey	ILFAUOREDLY
iauo	LINDAUOMYCES (nz)	iaueyo		iauyoe	
iaeyou	DICHLAMYDEOUS	iaeyuo		iayoey	DIALYTODERMUS (nz)
iaeyou	VILAYNOUSE	iaeyuo		iayuoe	
ieaouy	BICEPHALOUSLY (s)	ieaoyu	TRICERATORHYNCHUS (nz)	ieauoy	
ieauyo		ieayou	I HEAR YOU	ieayuo	GIVE ASYLUM TO (bl)
ieoa		ieoa	DICEROCARYUM (nz)	ieouay	INTERGLOBULARLY (s)
ieouya		ieoyau	SIRENOCYAMUS (nz)	ieoyua	
ieuaoy		ieuayo		ieuoay	INTERPULMONARY (s)
ieuo	DIPLEUROSTYLA (nz)	ieuyao		ieuyoa	STIREURYTOMA (nz)
ieyaou	PINENCHYMATOUS	ieyauo		ieyoau	INEMBRYONATUS
ieyoua	I'LL TELL YOU WHAT	ieyuao		ieyuoa	
ioaeuy	MICROANEURYSM	ioaeyu		ioauey	MICROCAUTERY
ioauey	MICROAUGYLES	ioayeu	CRICOPHARYNGEUS (s)	ioayue	INGROSSATYUES
ioea	MICROMETALLURGY	ioea	MICRODERMANYSSUS (nz)	ioeuay	BIMOLECULARLY
ioeuya	STIROMEURYS (nz)	ioeyau	DISHOBEYSAUNT	ioeyua	
ioaey	BILOCULATELY (s)	ioaey	IOURNAYE	ioeay	MICRONUCLEARLY
ioe	IOURNEY-MAN	ioeyae	ISOBUTYRATE	ioyuea	INOUEYELLA
ioyaeu	MIMOCRYPTOPHAEUS (nz)	ioyaeu	INNOYAUCE	ioyuea	IOYNTENAUNT
ioyuea	MICROPYRENULA (nz)	ioyuea	INDOXYLSULFATE(nz)	ioyuea	
iuaeoy		iuaeoy		iuaoey	
iuaoey		iuayeo		iuayoe	IURACYONE
iuaoey	VITUPERATORY	iuayeo		iuoay	
iuo		iuoyao		iuoyoa	
iuo		iuoay		iuoay	IMMUNOTHERAPY
iuo	SCIUROCHEYLA (nz)	iuoyae		iuoyea	
iuo		iuoyae		iuoyea	
iuo	STIRRUP YEOMAN	iuoyae	INUYOLATE	iuoyea	BIGBURY-ON-SEA (tig)
iyaeou	PHILYDRACEOUS (w2)	iyaeuo		iyaoey	
iyaeou	DISSYNAGOGUE	iyaeuo		iyauoe	
iyeaou		iyeaou		iyeoau	DIMYKTEROGRAPTUS(nz)
iyoua		iyuao		iyuoa	
iyoeu		iyoeu		iyoeau	DICTYOPETALUM (nz)
iyoeu	DIZYGOPLEURA (nz)	iyoeu	RIGHT-YOU-ARE	iyoeu	GIPSY-MOUNTEBANK
iyueo		iyueo		iyueo	
iyueo		iyueo		iyueo	

Initial bigram	IA-	IE-	IO-	IU-	IY-	Total
Solid words	10	10	20	5	5	50
Hyphenated	1	--	1	1	2	5
Phrases	1	3	--	1	--	5
Totals (out of 24)	12	13	21	7	7	60 (out of 120)



oaeiuy	COTTAGE INDUSTRY	oaeiyu		oaeuiy	LONGAEUITY
oaeuyi		oaeiyu	OCTAEDRYXIUM (nz)	oaeuyi	
oaieuy	ON ACTIVE DUTY (bl)	oaieyu		oaieuy	FLOATING CURRENCY (bl)
oaiuye		oaiyeu	MORTALITY RETURNS	oaiyue	MORTALITY-CURVE
oaueiy		oaueyi	COMPASS SURVEYING	oauiey	CONSANGUINELY (s)
oauiyu	CONSANGUINYTE	oauyei		oauyie	
oayeiu	OMMATHYMENIUM (nz)	oayeyi	CONSTANTLY-RECURRING	oayieu	TO LAY IN THE SUDS
oayiuu	ORALLY-DIFFUSED	oayuei	HOARY MULLEIN	oayuie	JOHN BARRY HUMPHRIES
oeaiuy	OVERFAITHFULLY (w2)	oeaiyu		oeauiy	OVERMATURITY (w2)
oeauyi	HOMEWARD-HURRYING	oeayiu	MORDELLAPYGIUM (nz)	oeayui	MONETARY UNIT
oeiauy		oeiayu		oeiuay	MOTHERING SUNDAY
oeiuya		oeiyau		oeiyua	
oeuaiy	MOLECULARITY	oeuayi		oeuiay	CHOLEURICALLY (s)
oeuiya		oeuyai		oeuyia	LOPHEUTHYMIA (nz)
oeyaiu		oeyau	OBEYSAUNCIS	oeyiau	
oeyiua		oeyuai	MONKEY UP A STICK	oeyuia	
oiaeyu		oiaeyu		oiauey	SOCIAL-SURVEY
oiauye		oiayeu		oiaeyu	NOMINATYUE
oieauy		oieayu	PROPRIETARY DRUG (bl)	oieuy	
oieuya		oieyau	COPLEICYATHUS (nz)	oieyua	
oiuaey	CONTINUATELY	oiuaye	CONTRIBUTARYE	oiueay	CONSTITUENTARY
oiueya		oiuyae	SODIUM HYDRATE(w2)	oiueya	
oiyaeu	COTINCHYTRAEUS(nz)	oiyaeu		oiyeau	
oiyeua		oiyuae		oiyuea	
ouaeiy		ouaeiy	POURPARLEYING	ouaiey	OBJURGATIVELY
ouaiye	COUNSAILYNGES	ouayei	TOURNAYELLIDS (nz)	ouayie	PHOSPHURANYLITE
oueaiy	DOCUMENTARILY	oueayi	OUTWEARYING (ospd)	oueia	VOLUMETRICALLY
oueiyu		oueyai	JOURNEYMANSHIP(ch)	oueyia	COUNTERCYCLICAL
ouiaey	CONDUPLICATELY (s)	ouiaye		ouieay	SOUNDING ECSTASY
ouieya	COLUMBICHEYLA (nz)	ouiyea	COMMUNITY-CARE	ouiyea	COMMUNITY HEALTH
ouyaei		ouyaei	OUTTYRANNIZE	ouyaei	POULTRY-REARING
ouyeia		ouyiae	GORUCHWYLIAETH(nwd)	ouyiea	KOTUYITHECA (nz)
oyaeiu	ORYZAEPHILUS (aig)	oyaeui		oyaieu	DORYLAIMEILLUS (nz)
oyaiue	POLYANDRIQUE	oyauei		oyauei	CHOLYLTAURINE (dor)
oyeaiu	POLYCEPHALIUM (nz)	oyeaiu		oyeiau	
oyeiua		oyeuai	POLYNEURALGIC (s)	oyeuia	OXYGEUSIA
oyiaeu		oyiaue		oyieau	
oyieua		oyiuae		oyiuea	
oyuae		oyuae	OXYGUANINE	oyueai	
oyueia	POLYURESIA	oyuia	OXYURIASES (s)	oyuiea	OXYURIDEA (dbs)

Initial bigram	OA-	OE-	OI-	OU-	OY-	Total
Solid words	5	7	6	15	11	44
Hyphenated	3	1	1	2	--	7
Phrases	8	3	2	2	--	15
Totals (out of 24)	16	11	9	19	11	66 (out of 120)



uaeiyo		uaeiyo		uaeiyo	
uaeyoi	SUGAR-DESTROYING(w2)	uaeyoi		uaeyoi	CURTATE CYCLOID
uaieoy	UNPRAISEWORTHY	uaieoy		uaieoy	UNGAINSOMELY
uaioye	DURANDIOMYCES(nz)	uaiyeo	QUALITY PERSON	uaiyoe	HUMANITY-MONGERS
uaoeiy		uaoeiy		uaoeiy	UNAPPOSITELY
uaoyie		uaoyei		uaoyie	URANOPHYLLITE
uayeio		uayeoi	SUBARYTENOID (w2)	uayieo	
uayioe		uayoei	ULTRACYTOCHEMIST	uayoie	URANYLOXIDE
ueaiyo		ueaiyo		ueaiyo	UNREASONINGLY (w2)
ueayoi		ueayio		ueayoi	UNEASY-GOING
ueiaoy		ueiayo		ueioay	QUESTIONABLY
ueioya		ueiyao		ueiyoa	
ueoaiy	UNREPROACHINGLY	ueoayi		ueoiay	SUPERSONICALLY
ueoiya		ueoyai	CUPRESSOCYPARIS	ueoyia	URETHRODYNIA (s)
ueyaio	TURKEY APRICOT	ueyaoi		ueyiao	
ueyioa	SURVEYING-COMPASS	ueyoai	SURVEYOR'S CHAIN	ueyoia	TURVEYDROPIAN
uiaeyo	SURVIVAL-THEORY	uiaeyo		uiaeyo	MUSICAL-COMEDY
uiaoye	SUPPLICATORYE	uiayeo		uiayoe	
uiaeoy	GUILD-MERCATORY	uieayo	QUIETACYON	uieoay	SQUIREOCRACY (w2)
uieoya		uieyao	TURBINE DYNAMO	uieyoa	USTILENTYLOMA (nz)
uioaey	MULTILOBATELY (s)	uioaye	CUSHION-LAYER	uioeay	UNDISCOVERABLY
uioeya		uioyae	HUNTING-VOYAGE	uioyea	ULRICHOTRYPELLA(nz)
uiyaeo		uiyaoe	SULFINPYRAZONE (s)	uiyean	
uiyean	PUDDING-PYE-WOMAN	uiyoea	SULPHICHTHYOLATE(w2)	uiyoea	PURITY OF HEART (bl)
uoaeiy		uoaeiy	SULPHOCARBETHYLIC	uoaeiy	UNCONSTRAINEDLY
uoaiye		uoayei	PULMONARY VEIN (s)	uoayie	ZUGODACTYLITES (nz)
uoaiy	UNCONCEALINGLY (w2)	uoeyai		uoeyia	UNCOMMERCIALY (w2)
uoeyia		uoeyai		uoeyia	BUNOWEYHIA (nz)
uoiaey	SUBORDINATELY	uoiaye	QUOIT-PLAYER	uoieay	UNNOTICEABLY
uoieya		uoiyae		uoiyean	
uoyaei		uoyaei	BUOYANCIES (s)	uoyean	
uoyeia	SCUTOTYRRELLIA(nz)	uoyiae	UNCOPYRIGHTABLE	uoyiea	BUBOMYIELLA
uyaeyo		uyaeyo		uyaeyo	
uyaioe	FULLY-FASHIONED	uyaeoi		uyaeoi	ONLYCANTHROPIZE
uyeaio		uyaeoi		uyaeoi	
uyeioa	ULYSSES SIMPSON GRANT	uyeoai		uyeoia	GUYENOTIA (nz)
uyiaeo		uyiaoe		uyieao	
uyieoa		uyioae		uyioea	PUTTY IN ONE'S HANDS(bl)
uyoeai	BUTYRO-ACETIC	uyoeai	UGLYOGRAPHIZE	uyoeai	SHRUBBY HORSETAIL
uyoeia	UNHYPOTHETICAL (w2)	uyioae	UNHYPNOTIZABLE (w2)	uyioea	SUBHYOIDEAN (w2)

Initial bigram	UA-	UE-	UI-	UO-	UY-	Total
Solid words	8	7	9	12	6	42
Hyphenated	2	2	6	1	2	13
Phrases	2	2	2	1	3	10
Totals (out of 24)	12	11	17	14	11	65 (out of 120)



ya eiou	MY CAKE IS DOUGH	ya eiuo		ya eoiu	CRYPHAEوبيUS (nz)
ya eoui	SYLLABLE-COUNTING	ya euio		ya eui	
ya ieou	CRYSTALLIGEROUS	ya ieuo	LYMANTRICHNEUMON (nz)	ya ioeu	HYALICHROEUS (nz)
ya ioue		ya iueo		ya iue	
ya oeiu	MYCARDOTHELIUM (nz)	ya oeui	THYSANOTEUTHIS(nz)	ya oieu	HYALOIDEUS (s)
ya oiue	CYANOTIQUE	ya ouei	YARMOUTH HERRING	ya ouie	YAKOUNITES (nz)
ya ueio		ya ueoi	TRYPACHENOPSIS(nz)	ya uieo	
ya uioe	HYPALBUMINOSES (s)	ya uoei		ya uie	SYNTARUCOIDES (nz)
ya eiou	PYRENARIOUS (dbs)	ya eiuo		ya eoiu	MYRMECAPHODIUS(nz)
ya eoui	HYPERACOUSTICS(w2)	ya euio	HYPERABDUCTION	ya eui	HYPERGRANULOSIS (s)
ya iaou		ya iauo		ya ioau	
ya ioua		ya iua		ya iua	
ya oaiu	HYMENOLAIMUS (nz)	ya oai	HYPEROXALURIC (s)	ya oia	
ya oiua	THYREOLINGUAL (w2)	ya oiui		ya oi	BYELORUSSIAN
ya euai	DYSREGULATION (s)	ya euai		ya eu	
ya uioa	HYPERFUNCTIONAL	ya uoi		ya uia	DYSEPULOTICAL
ya ieou	XYRIDACEOUS	ya ieuo		ya ioeu	MYIANOETUS (nz)
ya ioue	MYRIAD-TONGUED	ya iueo		ya iue	
ya ieou	HYPsICEPHALOUS (s)	ya ieuo		ya ie	
ya ioua		ya iua		ya iua	RHYTILEUCOMA (nz)
ya oaeu	SCYLLIOGALEUS (nz)	ya oae	MYRTIFORM CARUNCLE	ya oie	SYRIOPETALUM (nz)
ya oiuea	CYLINDROCELLULAR	ya oiue	PYIOUNCRAWE	ya oiue	
ya iuae		ya iuae		ya iue	
ya iueo		ya iueo		ya iueo	
ya iuea		ya iuea		ya iuea	
yo aeiu	MYCOBACTERIUM	yo aeui	PYROCATECHUIC (w2)	yo aeiu	HYDROBASILEUS (nz)
yo aiue	SYMPTOMATIQUE (s)	yo auei		yo aue	HYDROCAULINE
yo eaiu	ZYGOSTEPHANISCUS(nz)	yo eai	PYROMETALLURGIST	yo eia	TYPHLOPERIPATUS (nz)
yo eiua	LYMPHORETICULAR	yo eui	MYONEURALGIC (s)	yo eia	HYPOGEUSIA
yo iaue	PHYTODIAETUS (nz)	yo iaue	SYMPOSIAQUES	yo iae	
yo iuea		yo iue	PSYCHOSTIMULATE(s)	yo iue	
yo aei	YOU NAME IT	yo aie	PYRROBUTAMINE (s)	yo aie	YOUNG-ENGLANDISM
yo ueia	SYNWOCKLUMERIA (nz)	yo uiae	CYPROQUINATE (s)	yo uie	GYMNOJURINELLA (nz)
yua eio		yua eoi		yua eio	
yua ioe		yua oei	YUNNANOLEPIS (nz)	yua oie	PYRUVALDOXINE (s)
yue aio		yue aio		yue aio	CYNULLEIDFAOL (nwd)
yue ioa		yue oai		yue oia	
yui ae		yui ae		yui ae	
yui eoa		yui oae		yui oea	
yuo aei		yuo aie		yuo aie	
yuo eia	CYRUPOEDIA	yuo iae	GLYCURONIDASE (s)	yuo iea	PHYLUM PORIFERA (sponges)

Initial bigram	YA-	YE-	YI-	YO-	YU-	Total
Solid words	12	12	8	18	5	55
Hyphenated	1	--	1	1	--	3
Phrases	2	--	1	1	1	5
Totals (out of 24)	15	12	10	20	6	63 (out of 120)



## Most Productive Permutations

My personal word list includes nearly 1600 AEIOUY examples. The total number of examples for each permutation varies widely. The most productive permutations are EUOYIA (69 solid words, mostly animal genera), EUOIAY (33 solid words ending -ally), and UEOIAY (29 solid words also ending -ally).

## Longest and Shortest Words

The longest AEIOUY word I found has 20 letters. ANTISTREPHORRHYNCHUS (nz) is an extinct crustacean. The shortest have 8 letters: IALOUSYE, EURYOPIA (s), EYDOUXIA (dfpf), EURYOMIA (nz), EUMYOBIA (nz) and JOYEUXIA (nz).

## The AEIOUY Permutation

Those words in which the 6 vowels occur in alphabetical order hold a particular fascination: ABSTEMIOUSLY, ACHEILOUSLY, ACHEIROUSLY, AFFECTIOUSLY, ARSENIOSLY, CAVERNILOQUY, FACETIOUSLY, HAREIOUSLY, MARVEIL(L)OUSLY, PARECIOUSLY, TRAGEDIOUSLY and the hyphenated HALF-SERIOUSLY (w2).

## The YUOIEA Permutation

Single words in which the 6 vowels occur in the reverse order YUOIEA would also be fascinating if any could be found. For a discussion on this subject, the reader is directed to "AEIOU Words in Biology: Part 1" (Word Ways Nov 1993). The only YUOIEA example of which I am aware is the taxonomic phrase *PHYLUM PORIFERA* (sponges).

## Vowel-Consonant Patterns

The 6 vowels alternate singly with single consonants in ADELOGYRINUS (nz), ALUMINOTYPE (w2), ARIXYLEBORUS (nz), BILOCULATELY (s), CARINODYNERUS (nz), COPULATIVELY, CORYZAVIRUSES (s), DYSEPULOTICAL, ELUCIDATORY, HEMATOCYTURIC (s), HYPERAZOTURIC (s), HYPEROXALURIC (s), ISOBUTYLATE, ISOBUTYRATE, MAJORITY RULE, MOLECULARITY, MYTILOCERAMUS (nz), PARIFODYNERUS (nz), PYROMUCAMIDE, RETICULOMYXA (nz), UNIFORATELY (s), URANYLOXIDE, UROGENITARY, VEHICULATORY, VITUPERATORY. The 6 vowels alternate singly with pairs of consonants in INDUCTOTHERMALLY (s). Pairs of vowels alternate with single consonants in EUMYOBIA (nz), EURYOMIA (nz), EURYOPIA (s), EYDOUXIA (dfpf) and IALOUSYE (see also Longest and Shortest Words). Pairs of vowels alternate with pairs of consonants in the phrase TRAIN JOURNEY.

## Circular Permutations

Ten of the 720 permutations have circular vowel arrangements. Here are examples for 6 of the 10. For left-right permutations, there is ISOBUTYRATE and MY CAKE IS DOUGH; for right-left permutations, DASYUROIDES (nz) and PLATYBUNOIDES (nz),



*GIVE ASYLUM TO* (bl), *PROPRIETARY DRUG* (bl), *SUBPOPLITEALLY* (s), *QUOD-LIBETARY*, *UNCOMPLIMENTARY* and *UNNOTICEABLY*. Can anyone find examples for the 4 remaining circular permutations *EIOUYA*, *OUYAEI*, *UYAEIO* and *EAYUOI*?

## Heterograms

Selecting words with just one of A,E,I,O,U and Y inevitably throws up a relatively high percentage of heterograms, words in which every letter is different. Some 300 of my nearly 1600 AEIOUY examples are heterograms. In this A-Z list, each of the 26 solid word heterograms has a different AEIOUY permutation:

*AMBIDEXTROUSLY*, *BUOYANCIES* (s), *CAVERNILOQUY* (s), *DOCUMENTARILY*, *ELUCIDATORY*, *FATILOQUENCY*, *GLYCURONIDASE* (s), *HAEMOLYTICUS* (s), *ILLFAVOUREDLY*, *JOYEUXIA* (nz), *KERATINOUSLY* (s), *LEUCOCYTAXIS* (s), *MYIANOETUS* (nz), *NEUROMYIA* (nz), *OBJURGATIVELY*, *PYROGUANITE*, *QUESTIONABLY*, *RETICULOMYXA* (nz), *SUBORDINATELY*, *TRAGEDIOUSLY*, *UNCOPYRIGHTABLE*, *VESICULOGRAPHY* (s), *WEYMOUTHIA* (nz), *XYRIDACEOUS*, *YAKOUNITES* (nz), *ZYGEUPOLIA* (nz)

## The Letter W

The OED tells us that "From the early ME period 'w' was often substituted for 'u' in vowel digraphs...in modern spelling aw, ew, ow are phonetically equivalent to au, eu, ou...The traditional statement of grammarians that 'W is a vowel as well as a consonant' refers to its use in these digraphs." In view of its vowel association, I looked for AEIOUY words which also contain a single letter W. I found remarkably few solid word examples: *BUNOWEYHIA* (nz), *BYCHOWSKYCREADIUM* (nz), *GORUCHWYLIAETH* (nwd), *MOUTHWATERINGLY* (bl), *OUTWEARYING* (ospd), *SYNWOCKLUMERIA* (nz), *UNPRAISEWORTHY*, *WEYMOUTHIA* (nz).

## References for Non-OED Words

- aig    *Agricultural Insects of Ghana* compiled by Forsyth, Ghana University Press 1966
- bl     *Bloomsbury Thesaurus*, 1993
- ch     *Chambers Dictionary*
- db     *The Dictionary of the Biological Sciences* by Gray, Van Nostrand Reinhold 1967
- dbt    *Dictionary of Biological Terms* by Henderson & Henderson, Oliver & Boyd 1963
- dfpf   *A Dictionary of the Flowering Plants and Ferns* by Willis, CUP 1966
- dor    *Dorland's Medical Dictionary*
- long   *Longman's Dictionary of the English Language*
- nwd    *The New Welsh Dictionary* by Evans & Thomas, Christopher Davies Pubns. 1970
- nz     *Nomenclator Zoologicus*, The Zoological Society of London
- ospd   *Official Scrabble Players Dictionary*
- s       *Stedman's Medical Dictionary*
- tig     *Times Index Gazetteer of the World*, 1965
- wgd    *The Complete Word Game Dictionary* by Pulliam & Carruth, Hudson 1984
- w2     *Webster's Second Edition*